UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/750,476	12/31/2003	Greg R. Black	CS23369RL	9805

20280 7590 06/14/2007

MOTOROLA INC
600 NORTH US HIGHWAY 45
ROOM AS437
LIBERTYVILLE, IL 60048-5343

EXAMINER	
JOSEPH, JAISON	

ART UNIT	PAPER NUMBER
2611	

MAIL DATE	DELIVERY MODE
06/14/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/750,476	BLACK ET AL.	
	Examiner	Art Unit	
	Jaison Joseph	2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *31 December 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-14 and 23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-14 and 23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Specification

The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 – 9, 14 and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by Chen et al (USPAP 2002/0136183).

Regarding claim 1, Chen et al teach a method in a transmitter for data collision avoidance in an uncoordinated frequency hopping communication system (see abstract) comprising: determining that a first data set to be sent to a first device and a second data set to be sent to a second device are scheduled to be transmitted simultaneously on a first frequency (see paragraph 0019); transmitting one of the first data set and the second data set on the first frequency (see paragraph 54, 58, and 68); delaying transmission of an other of the first data set and the second data set; and transmitting the other of the first data set and the second data set on a second frequency (see paragraph 54, 58, 68).

Regarding claim 2, which inherits the limitations of claim 1, Chen et al further teach delaying transmission of the second data set temporally to the next scheduled transmission time (see paragraph 54, 58, 68).

Regarding claim 3, which inherits the limitations of claim 2, Chen et al further teach wherein the first frequency is one of a plurality of frequencies of a first frequency hopping pattern (see paragraph 8 and 68).

Regarding claim 4, which inherits the limitations of claim 2, Chen et al further teach wherein the second frequency is one of a plurality of frequencies of a second frequency hopping pattern (see paragraph 8 and 68).

Regarding claim 5, which inherits the limitations of claim 3, Chen et al further teach wherein the second frequency is one of a plurality of frequencies of a second frequency hopping pattern (see paragraph 8 and 69).

Regarding claim 6, which inherits the limitations of claim 5, Chen et al further teach further comprising transmitting the second data set on a frequency which is sequentially next in a frequency hop-set (see paragraph 68 and 69).

Regarding claim 7, which inherits the limitations of claim 3, Chen et al further teach further comprising, prior to, transmitting one of the first data set and the second data set, randomly selecting either the first data set or the second data set to be transmitted first (see paragraph 19, Chen et al teach delaying (stalling) at least one of the signals which interpreted as randomly selected further).

Regarding claim 8, which inherits the limitations of claim 7, Chen et al further teach wherein transmitting one of the first data set and the second data set further

comprises transmitting the randomly selected data set of the first or second data set during a scheduled transmission frame and on a scheduled transmission frequency, and wherein delaying further comprises delaying the data set of the first or second data set not randomly selected to the next scheduled transmission frame (see paragraph 54, 58, 68).

Regarding claim 9, which inherits the limitations of claim 8, Chen et al further teach wherein transmitting the other of the first data set and the second data set further comprises transmitting the data set not randomly selected at the next scheduled frame and on the next scheduled transmission frequency (see paragraph 54, 58, 68).

Regarding claim 14,Chen et al teach a method in a transmitter for data collision avoidance in an uncoordinated frequency hopping communication system comprising (see abstract): determining that a first data set to be sent to a first device and a second data set to be sent to a second device are scheduled to be transmitted simultaneously on a first frequency (see paragraph 0019); transmitting the first data set on the first frequency; and discarding the second data set (see paragraph 54, 58, 68 and 80).

Regarding claim 23, Chen et al teach a method in a transmitter for data collision avoidance in a frequency hopping communication system comprising (see abstract): determining that a first data set to be sent to a first device and a second data set to be sent to a second device are scheduled to be transmitted simultaneously on a first uncoordinated frequency hopping frequency (see paragraph 19); transmitting the first data set on the first frequency hopping frequency (see paragraph 54, 58, 68); delaying transmission of the second data set; transmitting the second data set on a second

frequency hopping frequency(see paragraph 54, 58, 68); transmitting a third data set to a third device on a first coordinated frequency hopping frequency (see paragraph 54, 58, 68).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 10 – 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen et al (USPAP 2002/0136183) in view of Orava (USPAP 2002/0071477).

Regarding claim 10, which inherits the limitations of claim 9, Chen et al does not expressly teach assigning a first sub-channel code to the first device However in analogous art, Orava teaches assigning the sub-channel code to first device (see paragraph 15). Therefore it would be obvious to an ordinary skilled in the art at the time the invention was made to assign the sub-channel code to first device. The motivation or suggestion to do so is to identify the transmitted data with associated device (see paragraph 0015).

Regarding claim 11, which inherits the limitations of claim 10, Orava further teaches inserting the sub-channel code, that correlates to the first sub-channel code assigned to the first device, into the first data set to be transmitted (see paragraph15).

Regarding claim 12, which inherits the limitations of claim 9, Orava further teaches assigning a second sub-channel code to the second device (see paragraph 15).

Regarding claim 13, which inherits the limitations of claim 10, Orava further teaches inserting the sub-channel code, that correlates to the second sub-channel code assigned to the second device into the second data set to be transmitted (see paragraph 15).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jaison Joseph whose telephone number is (571) 272-6041. The examiner can normally be reached on M-F 9:30 - 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chieh Fan can be reached on (571) 272-3042. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jaison Joseph
06/08/2007

CHIEH M. FAN
SUPERVISORY PATENT EXAMINER